AGRILIGHT®

BRIGHT BY NATURE

User Guide and Assembly Instructions AL2007 armature

Type: AL2007 - AL2007D - ALPL70D

AGRILIGHT b.v.
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CE EN 60598-1:2008 IP54

Dear customer

Thank you for buying an Agrilight b.v. product. These light fittings were designed specifically for lighting cattle houses and meet the requirements and specifications of the contemporary market. These light fittings are the result of comprehensive research and clever development and have been built in accordance with the latest technical developments.
This manual will give you the necessary information to enable you to safely and correctly install and use your light fittings. We advise you to read it carefully and to keep it safe. In the event of doubt, please do not hesitate to contact your service technician or Agrilight B.V. for additional information.

Use

Since these light fittings have reflecting covers, perfect light distribution can mostly be achieved in a cattle house of up to 24 metres wide, using a single row of light fittings in the centre of the house. The light fittings in the AL2007 series are dust and watertight and comply with the inspection requirements for intensive livestock farming.

Bespoke lighting layout

A successful lighting system starts with a thoroughly devised lighting layout with 4 light options, created specifically for your cattle house. This advice is free of charge and obligation and takes into account any obstacles in your cattle house to ensure that the light is uniformly distributed throughout the house. You will be receiving this lighting layout enclosed with our quotation.

In-line test for AL2007 light fittings

The following tests are carried out during production:

- 500 Volts test
- Earth test
- Function test

CE-marking

CE

Referring to the declaration of conformity for the light fitting, the CE mark on the light fitting's rating label also confirms that the light fittings comply with the strict European safety standards.

Designated use

The AL2007 light fittings are intended for lighting cattle houses. Any other use does not comply with their designated use.
Agrilight b.v. does not accept any responsibility for damage or loss or injury resulting from any other use than that for which the light fittings have been developed and designed.

For your safety: Note!

Agrilight b.v. attaches the greatest importance to the light fittings being used and maintained in a manner which gives priority to user safety.
To ensure safe and reliable use, proceed as follows:

1. Read this manual before installing the light fittings.
2. Make sure that all people involved in installing the light fittings and putting them into use know the relevant information from this manual before the light fittings are installed and/or put into use. Make sure that the instructions are actually understood. Responsibility for this rests with the person who is responsible for installation.

230V electric power
There is 230V live power on components in the light fittings.

Safety instructions
Always comply with the safety instructions in this manual. Any failure to comply with the safety instructions, warnings and instructions may result in serious or lethal personal injury and to material damage to the installation.

Installation

To enable optimum performance of these light fittings it is crucial that they are installed and put into use by a recognised installer, in accordance with the lighting layout (installation drawing).

Service parts

To ensure proper operation of the unit, only original Agrilight B.V. components should be used, or components of the same quality. The trigger-switch does not comprise any serviceable parts.

EU declaration of Conformity:

Manufacturer: Agrilight b.v.
Address: Vlotlaan 560, 2681 TX Monster, The Netherlands

Hereby certifies that the Agrilight B.V. armatures with type designation: **AL2007** / **AL2007D** / **ALPL70D**

comply with the provisions and regulations laid down in directive: **"Low voltage", 73/23/EEG**

And comply with the standards: **EN60598-1** and **EN60598-2-1**

Monster, 2010 Agrilight b.v.

We reserve the right to make changes to text, drawings and graphs etc. without prior notice.

Document : AL2007 Version: 02 Date: March 2010

Unpacking and inspecting

1. Carefully unpack the AL2007 light fitting.
2. Immediately inspect it for any damage due to transport or other causes.
3. Immediately report any damage to a light fitting to the carrier, the insurance company and Agrilight b.v., referring to the delivery documents. We advise you not to put a damaged light fitting into use, even if the damage seems to be only superficial. If you are considering putting a damaged light fitting into use, first consult Agrilight b.v.

The packaging contains (figure 1)

No.	*Quantity*	*Description*	
(**1**)	1	AL2007 light fitting	
(**2**)	1	Swivel nut	
(**3**)	1	Swivel plug	
(**4**)	2	Suspension bracket	(for chain suspension)
(**5**)	1	Mounting bracket	(for bracket installation)
(**6**)	2	(a) 950-mm support	(for bracket installation)
		(a) 450-mm support	(for bracket installation)
		(a) 200-mm support	(for bracket installation)
(**7**)	1	Bulb (is supplied separately, contrary to this picture)	
(**8**)	1	Wire steel light support (ALPL70D)	

Other fasteners. (if and to the extent that they have been ordered)

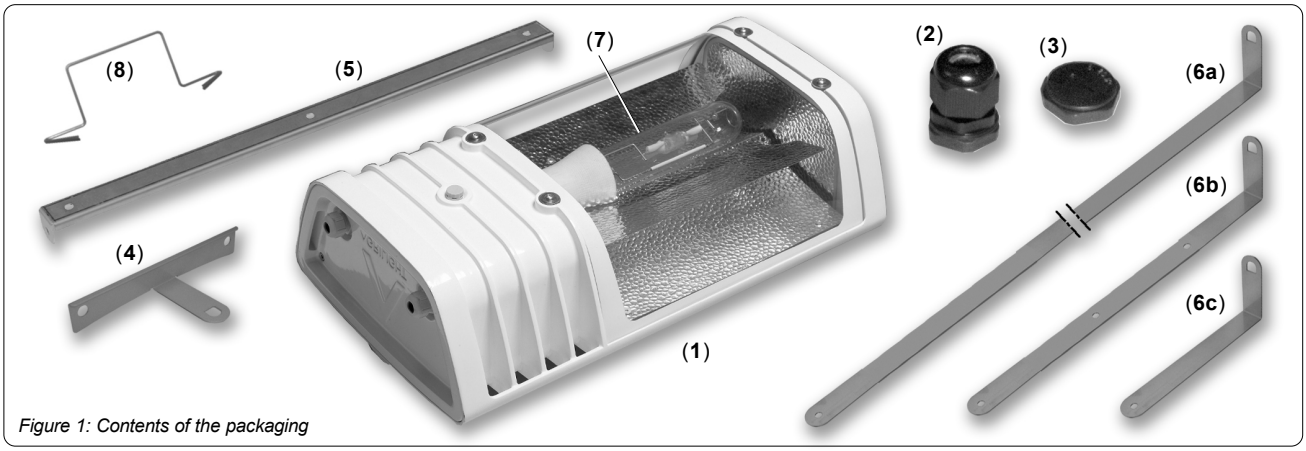
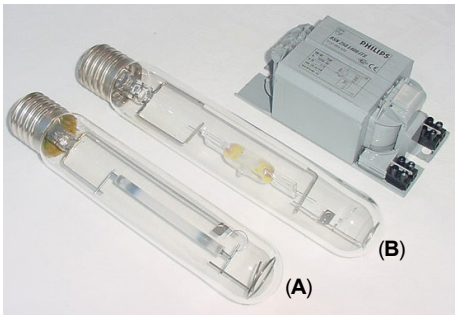


Figure 1: Contents of the packaging

An introduction to the different types of light fitting

The AL2007 series comprises three types of light fitting, each of which is available in various watt ratings (see also the Technical specifications).

- AL2007 : AL100 Watts, AL150 Watts, AL250 Watts, AL400 Watts
- AL2007D : AL100D Watts, AL150D Watts
- ALPL70D : AL70D Watts



TYPE: AL2007

The AL2007 light fitting was designed specifically for lighting cattle houses. Depending on your requirements and the results of the lighting layout, the light fittings have high-quality:

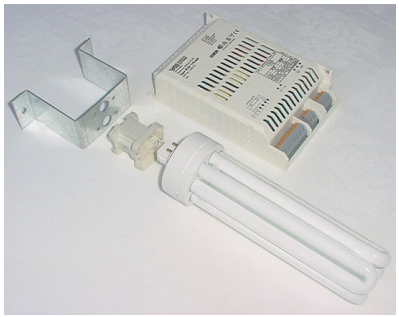
- high-pressure sodium bulbs (yellow light) (**A**).

  or

- metal halide bulbs (white light) (**B**).

TYPE: AL2007D

Type AL2007 is also available in a dim version, identified by the letter D. This AL2007D has been fitted with 0-10 Volt control for this purpose.
This enables you to control the light level in the cattle house to use between 20% and 100% of the bulbs' power to save energy.



TYPE: ALPL70D

The ALPL70D light fittings can be dimmed and have been designed specifically for lighting poultry houses. The light fittings have white 70W fluorescent bulbs with colour code 830. The light level of this type of bulb can be dimmed from 100% to 3% of the bulbs' power, which will lower their current consumption by a proportionate level.

Choke

AL2007D and ALPL70D light fittings have electronic chokes. This enables optimum light level control and makes the bulb perform even better.

Technical specifications of AL2007, AL2007D and ALPL70D

Specifications	**ALPL70D***	**AL2007**				**AL2007D***	
	AL70D* Watts	**AL100 Watts**	**AL150 Watts**	**AL250 Watts**	**AL400 Watts**	**AL100D* Watts**	**AL150D* Watts**
Dimensions L x W x H	480 x 370 x 240 (mm)						
Weight (fully assembled)	9,70 Kg	12,40 Kg	12,80 Kg	13,30 Kg	14,40 Kg	10,10 Kg	10,10 Kg
Bulb type	PL	HPS of MH	HPS of MH	HPS of MH	HPS of MH	HPS	HPS
Bulb power	70 watts	100 watts	150 watts	250 watts	400 watts	100 watts	150 watts
Mains voltage**/Frequency	230V / 50Hz	230V / 50Hz	230V / 50Hz	230V / 50Hz	230V / 50Hz	230V / 50-60Hz	230V / 50-60Hz
Current	0,4 Amp	0,52 Amp	0,76 Amp	1,30 Amp	2,3 Amp	0,50 Amp	0,75 Amp
Power factor (indicative)	> 0,98	> 0,85	> 0,85	> 0,85	> 0,85	> 0,98	> 0,98

* D = can be dimmed via 0-10 volt control
** Other voltage ratings on request.

Installation

If the following instructions and safety warnings are not complied with, this may result in death or serious personal injury and damage to the equipment.

- Only a certified technician is permitted to install the AL2007.
- Some caution is required when handling the armature, also to prevent damage being caused to the components due to mechanical stress. Avoid shocks and other kinds of stresses or loads during transport, when assembling and mounting, and when using the armature.
- Always block off any traffic in the vicinity where the AL2007 is being installed before commencing with any work on the installation.
- Always disconnect the armature from the power source before carrying out any work on the installation. Ensure that the power supply is not turned on accidentally.
- Keep the direct vicinity free from animals and any internal transport whilst carrying out installation activities.
- Only use insulated tools!
- Place and secure the light in the armature before mounting the armature.

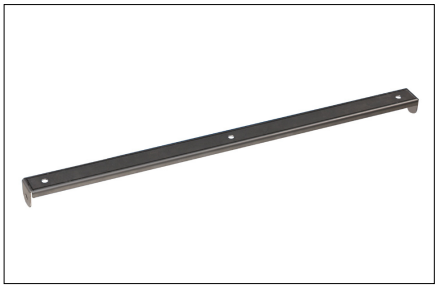
- **Ensure that the power supply and voltage corresponds to the power supply and voltage required by the armature. These are clearly indicated on the armature sticker.**
- **When connecting up, consult the circuit diagram in this manual and always ensure that you comply with the legally applicable connecting requirements (e.g. NEN 1010 for the Netherlands).**

The lighting plan shows the conditions that must be taken into account when installing. These instructions must be fully complied with in order to ensure uniformity and a proper illumination level.

Agrilight B.V. cannot be held liable for damage and/or injury resulting from improper mounting and installation.

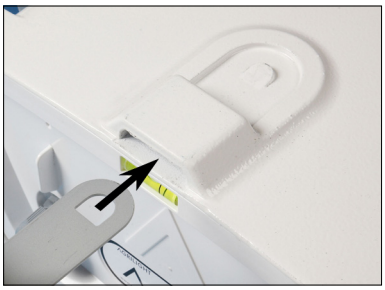
Installing a light fitting using a mounting bracket

1. Install the bulb in the light fitting. Consult the section “Replacing bulbs” on page 4 for the work procedure.



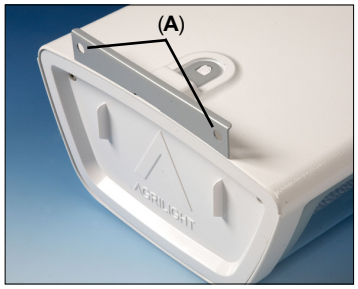
2. Install the mounting bracket (**5**) to the ceiling, mounting structure or supporting beam. Properly anchor the bracket to prevent it coming loose!

3. Attach the two supports (**6**) to the mounting bracket.



4. Push the 2 supports (**6**) into the slots at the top of the light fitting (**1**) until the lugs click into the support ends, locking them to prevent them coming loose. In principle, this connection cannot be undone again.

Installing a light fitting using chains



1. Push the 2 suspension brackets (**4**) into the slots at the top of the light fitting until the lugs click into the bracket ends, locking them to prevent them coming loose. In principle, this connection cannot be undone again.
2. Install the chains to the ceiling, mounting structure or supporting beam.
3. Attach the light fitting by engaging the chains in the holes (**A**).

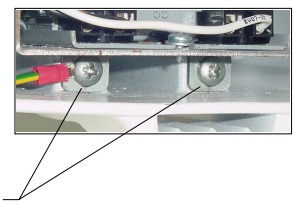
Levelling

A spirit level vial has been installed in the plastic cover on the electronics side of the light fitting. You can adjust the light fitting horizontally (around the bulb axis) by turning the light fitting around the bulb axis until the spirit level vial is central.

Making the electrical connections

Never remove the glass cover of the light fitting, otherwise the gasket in the cover might not seal properly anymore. Removing the glass cover invalidates your guarantee rights! Only carry out assembly and disassembly work via the plastic end covers of the light fitting.

Type AL2007 comes with a 1.5 m lead as standard which only has to be connected in the junction box.



1. Remove the plastic end cover from the light fitting on the electronics side (2 screws).
2. Undo the two screws at the bottom of the electric slide and remove the slide from the light fitting.

Replacing bulbs

Always use the correct bulb in a light fitting, otherwise the light fitting may be damaged. The correct type of bulb is stated on the rating sticker on the light fitting.

- **AL2007** bulb types: HPS of MH (100W, 150W, 250W, 400W)
- **AL2007D** bulb types: HPS (100W, 150W)
- **ALPL70D** bulb types: PL 70W 4pin

Please be aware that both the armature glass and the light can be very hot and cause severe burns. Leave the light to cool down for at least half an hour before removing and handling.

The armature glass must never be detached or removed as this will cause damage to the sealing. The warranty becomes invalid if the armature glass is detached or removed. A lamp may only be removed or inserted through the opening in the side of the light compartment. This opening can be accessed only when the plastic cover is detached.

Before replacing the bulb interrupt the power supply to the light fitting to ensure a safe work situation.

Do not touch the bulb with your bare hands but wear clean gloves. This way you prevent the bulb glass being polluted and dirt burning into the glass.

Removing the end cover

1. Remove the two Torx screws from the plastic cover of the light compartment using a Torx (T20) screwdriver.
2. Use the two tabs to release and remove the cover. In the resulting opening there is a reflector with a rectangular window which provides manual access to the light.

Installing / replacing bulbs of AL2007 and AL2007D light fittings

Carefully turn the bulb in an anti-clockwise direction to unscrew it and screw the new bulb into the light fitting in the opposite direction until it is finger-tight. Make sure you do not deform the reflector plates while replacing bulbs.
After installing the bulb, we recommend carefully centring it in respect of the reflector / bulb axis by hand.
The slight lateral clearance of the bulb in the fitting can be used for this.
Slightly pushing the glass of the bulb from the side should suffice.

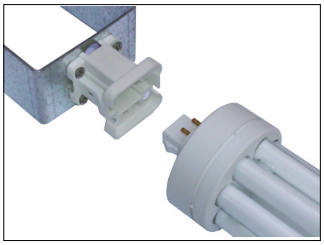
Installing / replacing bulbs/lamp support of ALPL70D light fittings

The fluorescent light (PL) is provided with a steel wire light support that supports the ends of the fluorescent light. This ensures the ‘straight and horizontal’ insertion and support of the fluorescent light in relation to the reflector assembly.

The lampbrace is designed to support both the fluorescent tubes of General Electric (three fold lamp) and Osram (four fold lamp).

Replacing bulb / lamp support

1. Lamp replacement: remove the steel wire light support mounted between the reflector wings and remove the light by carefully pulling it straight out of the fitting. Make sure that the reflector parts are not distorted in any way as these are essential for ensuring a proper and optimum distribution of light.
2. Fit the light into position by inserting it straight and horizontally into the light fitting.
3. Mount the steel wire supports of the light by sliding it carefully into the light glass and whilst sliding it into position at both ends of the reflector wings. Slide the light support into position within a distance of approx. 4-6 cm from the end of the light (see photos below) and at right angles to the length of the light. Make sure that the reflector parts are not distorted in any way as these are essential for ensuring a proper and optimum distribution of light.



Restoring the end cover

1. Clean the contact surfaces of the armature and the cover using a mild detergent on a damp cloth. Inspect the rubber sealing and gasket and replace if necessary.
2. Rub some mild soap or acid-free vaseline onto the rubber sealing and gasket. This will enable the cover to be fitted more easily.
3. Close the armature by replacing the cover and by screwing the two Torx screws tightly into position. To prevent damage to the cover or to the sealing do not use a battery-powered device to do this, nor apply excessive force. When closed, the cover should fit just inside the rim of the aluminium armature housing.

Maintenance

Always remove the voltage from the light fitting before carrying out maintenance work on the light fitting!

Pollution may negatively affect the service life of the light fitting. To maintain optimum light output we recommend regularly checking the state of the bulbs and cleaning the light fitting. A special cleaning kit is available for the AL2007 light fittings, consisting of a rounded brush, a telescopic bar, a customised bucket and special detergent. For additional information or to order this cleaning kit, contact your installer or Agrilight b.v.

Malfunction

When checking malfunctions, be aware of the risk of electrically live components. Although the armatures are designed with safety in mind and are earthed, hazards due to malfunctions can never be ruled out. Only certified technicians are permitted to handle the electrical installation or to perform measurements on the unit.

Always disconnect the armature before opening the plastic cover (turn off the main switch and secure it, e.g. with the use of a padlock).

Be aware of and prevent any accidental activation by others or by an automated control and/or dimmer switch. In the event of a malfunction, never touch the armature whilst the power supply is still connected or if the casing of the armature is damaged or wet.

The light fitting does not work:

Check that there is mains voltage:

- Check the switch panels;
- Check the fuses;
- Check your computer settings (if computer-controlled);
- Check / replace the bulb.

Check to determine whether the bulb has reached the end of its lifecycle:

- The bulb is flashing on and off;
- The end of the bulb is starting to turn black;
- Brown discoloration on the glass of the bulb;

If the bulb does not work: replace the bulb as soon as possible or disconnect the light fitting from its power supply.

If the bulb still does not work:

- Check the wiring;
- Replace the starter if the light fitting still does not work;
- Replace the ballast resistor if the light fitting still does not work.

Note! Light fittings which can be dimmed (D) have no loose starters or capacitors. Replace the ballast resistor unit if the new bulb does not work.

CONDITIONS OF WARRANTY

General

1. If it appears that your product does not function well, even though you have used it in the correct manner and in accordance with the user manual and assembly instructions, the product will be replaced free of charge within a period of one year after purchase. In order to claim this warranty the customer must submit the product invoice to Agrilight B.V. with the 1 year warranty period.
2. The product must be returned to Agrilight B.V. within 30 days following the occurrence of the defect or malfunction for the purpose of verification.
3. The product must be provided with a project name and sent to the following address:

   Agrilight b.v.
   Attn.: Service Dept.
   Vlotlaan 412
   2681 TV Monster, The Netherlands

4. When Agrilight B.V. sends the replacement parts you will receive an invoice that will be credited to your account when and if it can be verified that the malfunction of defect is covered by the warranty.
5. If Agrilight B.V. has not received the defective product by return mail within 30 days of the invoice date, the warranty invoice will be treated as a sales invoice, after which period the invoiced amount must be paid to Agrilight B.V. within 30 days.
6. The warranty does not cover the following situations for which the customer will be invoiced during the warranty period:
   a. Defects or damage resulting from fire, earthquakes, floods, lightning strikes, other natural disasters, as well as environmental pollution and problems related to power supply.
   b. Defects resulting from sand, mud, dirt etc. entering the cabinet of the product.
   c. Defects resulting from transport, accidents, shock and vibrations etc. following the purchase from and delivery of the product by Agrilight B.V..
   d. Defects resulting from carelessness or incorrect storage, improper maintenance etc.
   e. Defects resulting from improper use (such as the use of the unit for purposes not listed in the user manual and/or assembly instructions etc.).
   f. Defects resulting from (uncertified) repairs and modifications.
   g. If the invoice cannot be submitted together with the product when warranty claims are made.
   h. If changes have been made to the original purchase invoice or to the customer name on the invoice.
7. The liability on the part of Agrilight B.V. is limited to the scope of this warranty and only includes the replacement and/or repair of the product. Agrilight B.V. accepts no liability for damages incurred directly or indirectly as a result of any defects in the product. Agrilight B.V. is not liable for expenses incurred as a result of disassembly and assembly/mounting, or expenses incurred as a result of travel and accommodation.
8. Any damage resulting from transport or incomplete delivery must be reported to Agrilight B.V. within 5 working days. Any notifications received by Agrilight B.V. beyond this period do not fall within the scope of the warranty or warranty period.

Warranty on the lights

1. A warranty period of 1 year applies to the lights of armatures supplied by Agrilight B.V.
2. This warranty applies only to normal use and normal operating conditions with regard to power/voltage and frequency.
3. In the case of all lights supplied by Agrilight B.V. account must taken of approx. 1% failure per 1000 lighting hours.
4. Lights that fail prematurely during the course of the warranty period will be replaced by Agrilight B.V. Lights that fail as a result of abnormal external effects, due to breakage of the exterior bulb following thermo-shock or due to theft, do not fall under the replacement warranty.
5. The warranty does not apply to failure of the lights applied to systems in which those light types were used if such a system is not in compliance with IEC standards and requirements.

Aging and tolerances in the intensity of the lights applied

The light will age during use and will eventually emit less light as the number of total life-cycle lighting hours increases. The drop in light intensity is increased by a voltage that exceeds the prescribed rated power.

LIABILITY

Agrilight B.V. states emphatically that it cannot be held liable for damages of any kind or magnitude, caused by non-compliance with the instructions in this manual or as a result of non-compliance with the connecting and installing requirements according to NEN 1010. We also refer to our terms and conditions of delivery according to the conditions and requirements laid down by the Netherlands Metal Association and any additional warranty provisions of Agrilight B.V.
We reserve the right to make amendments without further notification.

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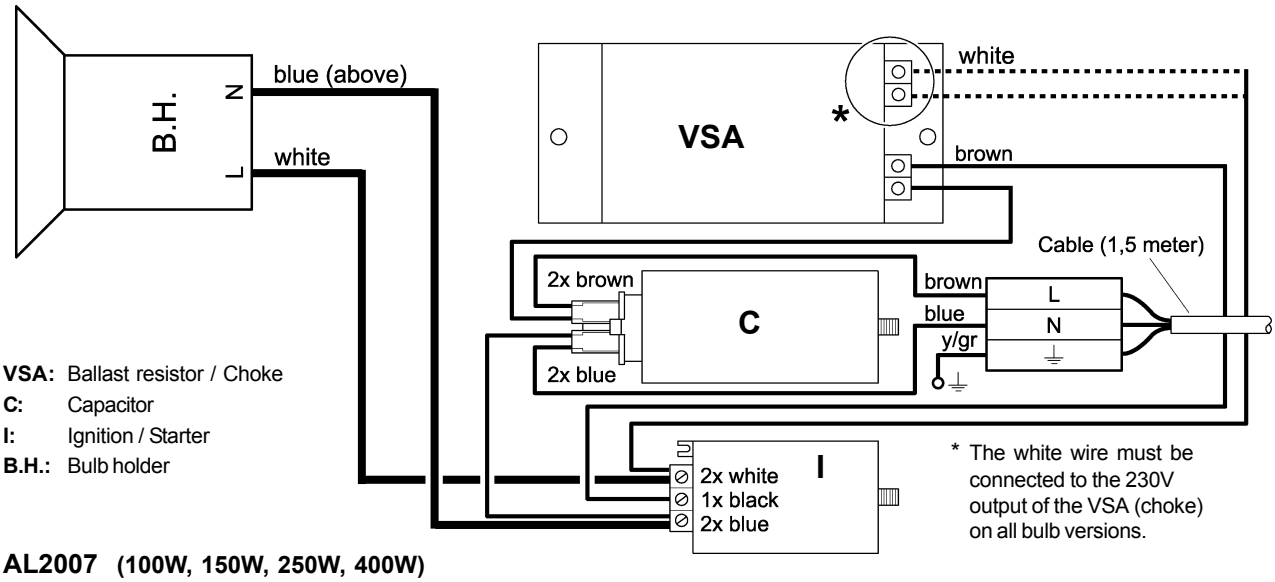
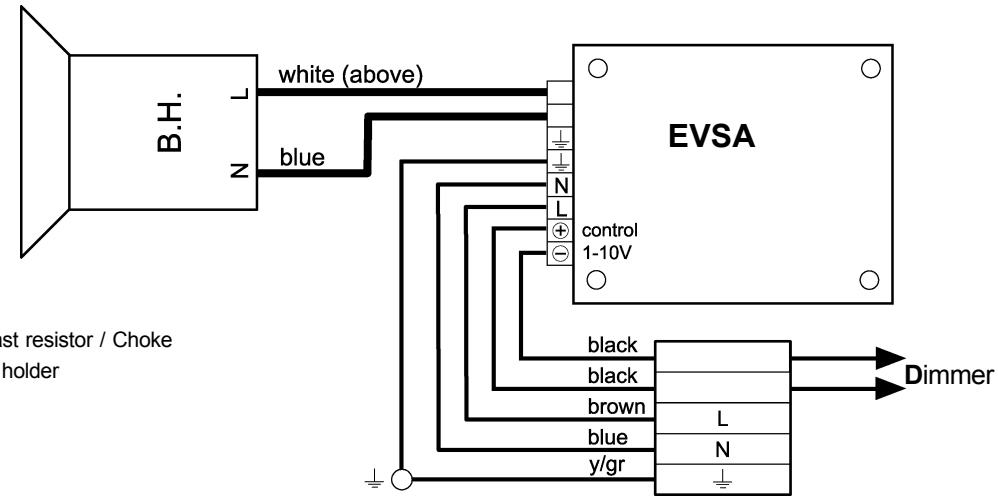


VSA: Ballast resistor / Choke
C: Capacitor
I: Ignition / Starter
B.H.: Bulb holder

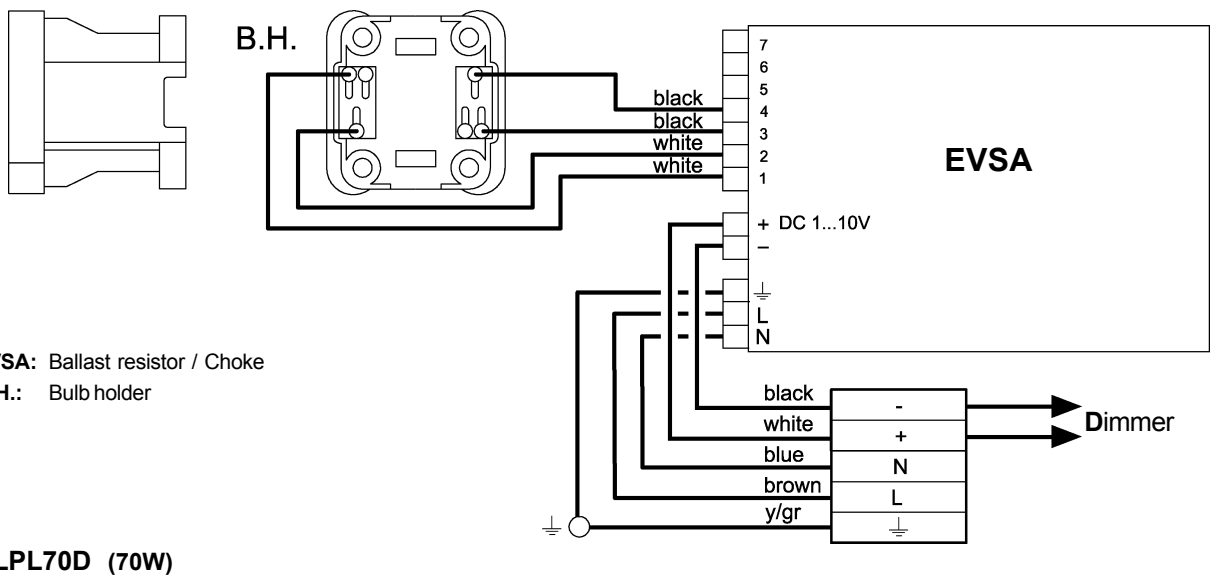
* The white wire must be connected to the 230V output of the VSA (choke) on all bulb versions.

AL2007 (100W, 150W, 250W, 400W)



EVSA: Ballast resistor / Choke
B.H.: Bulb holder

AL2007D (100W, 150W)



EVSA: Ballast resistor / Choke
B.H.: Bulb holder

ALPL70D (70W)